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**Flooding Creates Home Safety Concerns**  
*Public Health Issues Guidelines on Mold, Food Safety*

FRANKFORT, Ky. (May 3, 2010) The Kentucky Department for Public Health (DPH) is issuing safety guidelines to aid Kentuckians in the wake of large amounts of water run-off and flooding throughout the state. If possible, contact with flood waters should be avoided, as they may contain contaminants that could pose health hazards. Homeowners whose homes sustained water damage are urged to follow recommendations to limit mold damage and to ensure proper food handling and storage.

Mold fungi can be found indoors and out and can accumulate in homes affected by flood/water damage. Mold grows best in warm, damp and humid conditions and spreads by making spores.

"Though mold is almost always present in the air, it grows best in damp areas where humidity levels are high," said William Hacker, M.D., DPH commissioner. "The recent heavy rains throughout the state caused significant flooding and many homes experienced water damage. This is a concern for homeowners not only because of damage to their home, but because problems due to mold may result if left untreated."

To recognize the signs of mold, look for discolored walls possibly showing water damage, or green or black spots apparent on walls. Mold also has a musty, earthy smell or a foul stench. Allergy sufferers tend to be most affected by mold exposure.

To decrease exposure and reduce mold in the home, DPH recommends that homeowners keep the humidity level of the home between 40 and 60 percent. The use of an air conditioner or dehumidifier may be used to achieve a lower level of humidity. Always use exhaust fans when showering and cooking. Mold inhibitors for paint are also available from home improvement stores.

When cleaning up small areas affected by mold, use protective glasses or goggles. DPH also recommends wearing rubber boots and waterproof gloves, and washing clothing afterwards. If there is a heavy mold growth area, you may wish to use a basic respirator or suitable mask to prevent breathing the spores.

Other recommendations include:

- Ensure that the area is well ventilated before beginning.
- Remove all previously soaked porous items that have been wet for more than 48 hours and are not able to be cleaned and dried.
- Disinfect hard surfaces; a solution may be mixed of 1 cup of household bleach with 1 gallon of water.
- Contact a mold remediation consultant for severe mold cases.

In addition to mold concerns, DPH staff also cautions people to keep food safety in mind if they have been affected by power outages. This includes keeping freezers closed to maintain the proper temperature for frozen foods. A full freezer will hold the temperature for approximately 48 hours and for 24 hours if the freezer is half full.



Health officials remind Kentuckians that a refrigerator will only hold its temperature for about four hours, meaning food items such as milk, dairy products, meats, eggs and leftovers should be placed in a cooler surrounded by ice if the outage lasts for more than four hours. Dry ice can be used to keep refrigerators cold. If the outage lasts for several days, 50 pounds of dry ice should preserve food in an 18-cubic foot full freezer for two days. (You must be careful when handling dry ice. Never touch dry ice with bare hands or breathe its vapors in an enclosed area. Dry ice is frozen carbon dioxide, a gas. )

“Situations like this emphasize the need for emergency preparedness in the home,” said Guy Delius, director of the public health protection and safety division in DPH. “Food that is improperly stored or handled can lead to foodborne illness, which can be debilitating and in some cases life threatening.”

If left without power, purchase one or more coolers, ice and a digital, dial or instant-read food thermometer, DPH recommends. Public health guidelines also recommend keeping appliance thermometers in the refrigerator and freezer, no matter how long the power has been out. The refrigerator temperature should be 40 degrees Fahrenheit or below; the freezer should be 0 degrees Fahrenheit or lower.

“If you are not sure a particular food is cold enough, take its temperature with a food thermometer,” said Delius.

DPH recommends limiting the opening of freezer and refrigerator doors, even if an appliance has been out but returns to function within a couple of hours. If the freezer is not full, DPH strongly advises that poultry and meat items be grouped away from other foods to prevent juices from contaminating other items.

When the refrigerator and/or freezer are operating again, follow these guidelines to decide what to do with foods:

- Refrigerated foods should be safe as long as power is out for no more than four hours.
- Throw out any perishable food in your refrigerator, such as meat, poultry, lunchmeats, fish, dairy products, eggs and any prepared or cooked foods that have been above 40 degrees Fahrenheit for two hours. Bacteria can multiply to unsafe levels under these conditions.
- Fresh fruits and vegetables are safe as long as they are still firm, and there is no evidence of mold or sliminess.
- If an appliance thermometer was kept in the freezer, read the temperature when power comes back on. If the appliance thermometer stored in the freezer reads 40 degrees Fahrenheit or below, the food is safe and may be refrozen.
- If a thermometer has not been kept in the freezer, check each package of food to determine the safety.
- If the food still contains ice crystals or is 40 degrees Fahrenheit or below, it is safe to refreeze.
- Raw meats, poultry, cheese, juices, breads and pastries can be refrozen without losing too much food quality.
- Prepared food, fish, vegetables and fruits in the freezer can be refrozen safely, but food quality may suffer.

“Remember, you can’t rely on appearance or odor of the food to determine if it’s safe,” said Hacker. “Food that has thawed or was held above 40 degrees Fahrenheit for more than two hours should be thrown out because bacteria may multiply to unsafe levels.”

To remove spills and freshen the freezer and refrigerator, DPH recommends washing with a solution of two tablespoons of baking soda dissolved in one quart of warm water. To absorb any lingering odors, place an open box or dish of baking soda in the appliance.

Walking or working in flood waters, by itself, is not a risk for tetanus. However, in special circumstances, persons exposed to flood waters may be recommended to receive a tetanus vaccination. Unclean flood waters can pose a risk for tetanus to those who have open wounds that come into direct contact with such waters. While most persons in this situation will have already been vaccinated against tetanus, a booster vaccination is recommended for those who with open wounds who have not been vaccinated in the last 5 years and are working in flood waters. More frequent boosters are not indicated and have been reported to result in an increased incidence and severity of local adverse reactions. For questions about whether tetanus vaccination is recommended, contact your regular healthcare provider or your local health department.

For more information about public health issues related to flooding, visit the Centers for Disease Control and Prevention (CDC) Web site at: <http://www.bt.cdc.gov/disasters/floods/>.